Attachment D

Use of Immune Globulin (IG)

1. **Indications for IG for susceptibles with contraindications to measles vaccine:** IG given ≤ 6 days post-exposure can modify disease or prevent illness. It is unlikely to be effective if given > 6 days post-exposure. IG should be considered for all immunocompromised patients. If patients are **severely** immunocompromised, IG should be given, **regardless** of past history of vaccination (unless they have recent serologic proof of immunity). The dose of IG depends on the underlying medical condition of the patient, as outlined below:

   a) **IG 0.25cc/kg IM (maximum 15cc) should be given to:**
      - susceptible pregnant women;
      - immunocompromised individuals (non-HIV-infected) who are not severely immunosuppressed;
      - **susceptible** asymptomatic HIV-infected individuals (with CD4+ cell counts > 200) if exposed 3-6 days prior (if exposed ≤ 3 days prior, they should receive MMR)
      - infants < 12 months of age;
      - those with anaphylactic reactions to neomycin or gelatin;
      - those with other contraindications for measles-containing vaccine;

   (Egg-hypersensitivity is **NO LONGER** considered a contraindication.)

   b) **IG 0.5cc/kg IM (maximum 15cc) should be given to:**
   symptomatic HIV-infected individuals who are severely immunosuppressed (those with CD4+ cell counts< 200 or equivalent CD4+ counts for children) regardless of past history of immunization, unless they have recent serologic proof of immunity.

   c) **If IVIG (100-400mg/kg) has been given ≤ 3 weeks before exposure:**
   that individual should be considered protected, and no additional IG is needed. However, some experts recommend an additional dose of IVIG if ≥ 2 weeks have elapsed since the last dose.

Note: Although IG can modify illness, **INDIVIDUALS CAN STILL BECOME INFECTIOUS AND MUST BE ISOLATED AND EXCLUDED.**

2. **Immune globulin and live vaccines:**
   a) IG can inhibit the immune response to some live vaccines. After an individual has received IG or other blood products, these vaccines should be deferred for the appropriate time interval, **after** IG administration, as outlined below:
      - Measles vaccine - interval is IG-dose dependent and measles-containing vaccines should be deferred for:
        - ≥ 5 months, if received the 0.25 cc/kg dose;
        - ≥ 6 months, if received the 0.5 cc/kg dose;

- 3 - 11 months, if received any other blood product. Please refer to the table below, *Suggested Intervals between Administration of Immunoglobulin Preparations and Measles-Containing and Varicella Vaccines.*
- Mumps vaccine - should be deferred ≥ 3 months.
- Rubella vaccine - should be deferred ≥ 3 months.
- Varicella vaccine - interval is IG-dose dependent and vaccine should be deferred for 3 – 11 months. Please refer to the table below, *Suggested Intervals between Administration of Immunoglobulin Preparations and Measles-Containing and Varicella Vaccines.*
- Oral polio vaccine and oral typhoid vaccine - response to this vaccine is **not** affected by IG or blood products.
- Live viral vaccines – response to these vaccines is not affected by RSVIG-IM.
- Inactivated vaccines - response to these vaccines is **not** affected by IG or blood products.

b) Conversely, if MMR and varicella vaccines were given before IG or blood products - these products should be **deferred** for ≥ 2 weeks (if possible). This allows adequate immune response to develop. If these products cannot be deferred for ≥ 2 weeks, the individual should be either revaccinated, or tested for serologic immunity and revaccinated, after the interval specified in the table below, *Suggested Intervals between Administration of Immunoglobulin Preparations and Measles-Containing and Varicella Vaccines*.

Massachusetts Department of Public Health

Suggested Intervals between Administration of Immunoglobulin Preparations and Measles-Containing and Varicella Vaccines

Indication	Dose (including mg IgG/kg) / Route	Suggested interval before measles or varicella vaccination (months)
Tetanus (TIG)	250 units (~10 mg IgG/kg) / IM	3
Hepatitis A (IG)		
Contact prophylaxis	0.02 mL/kg (3.3 mg IgG/kg) / IM	3
International travel	0.06 mL/kg (10 mg IgG/kg) / IM	3
Hepatitis B prophylaxis (HBIG)	0.06 mL/kg (10 mg IgG/kg) / IM	3
Rabies prophylaxis (HRIG)	20 IU/kg (22 mg IgG/kg) / IM	4
Varicella prophylaxis (VZIG)	125 units/10 kg (20-40 mg IgG/kg) / IM (max. 625 units)	5
Measles prophylaxis (IG)		
Normal contact	0.25 mL/kg (40 mg IgG/kg) / IM	5
Immunocompromised contact	0.50 mL/kg (80 mg IgG/kg) / IM	6
Blood transfusion		
Red blood cells (RBCs), washed	10 mL/kg (negligible IgG/kg) / IV	0
RBCs adenine-saline added	10 mL/kg (10 mg IgG/kg) / IV	3
Packed RBCs (Hct 65%)	10 mL/kg (20-60 mg IgG/kg) / IV	5
Whole blood (Hct 35-50%)	10 mL/kg (80-100 mg IgG/kg) / IV	6
Plasma/platelet products	10 mL/kg (160 mg IgG/kg) / IV	7
Replacement of humoral immune deficiencies (as IGIV)	300-400 mg/kg / IV (as IGIV)	8
Respiratory Syncytial Virus Prophylaxis (RSV-IGIV)	750 mg/kg / IV	9
ITP (as IGIV)	400 mg/kg / IV (as IGIV)	8
ITP (as IGIV)	1000 mg/kg / IV (as IGIV)	10
ITP or Kawasaki disease (as IGIV)	1,600 – 2,000 mg/kg / IV (as IGIV)	11

Note on other live vaccines: Blood and other antibody-containing products (except washed red blood cells) can also diminish the response to rubella vaccine, and potentially to mumps vaccine. Therefore, after immune globulin preparations or other antibody-containing products are received, mumps and rubella vaccines should be deferred for ≥ 3 months. If RSV-IGIV is given, mumps, rubella and varicella vaccines should be deferred for ≥ 9 months. If RSV-IM is given, no deferral is needed for any live virus vaccines.

Adapted from: American Academy of Pediatrics. Measles. In: Pickering LK, ed. 2000 Red Book: Report of the Committee on Infectious Diseases. 25th ed. p. 390.

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